

WHAT IS CLAIMED IS:

1. An apparatus for adjustably securing an ultrasonic transducer to an orthopedic appliance, comprising:  
5 (a) an optional adjustable clamp adapted to adjustably secure the apparatus to an element of an orthopedic appliance;  
(b) a transducer holder adapted to secure the transducer to the apparatus;  
(c) an adjustable connector adapted to adjustably connect the adjustable clamp to the transducer holder.  
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2. The apparatus of claim 1, wherein the transducer holder is adjustable.
3. The apparatus of claim 1, wherein the adjustable clamp comprises one or more hinge elements adapted to be rotatably disposed on a rigid element of an orthopedic appliance.  
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4. The apparatus of claim 3, wherein the hinge elements are adapted to be moved along a longitudinal axis of the rigid element.  
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5. The apparatus of claim 1, wherein the transducer holder comprises a plate adapted to receive an ultrasonic transducer and mountable on the adjustable connector.
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6. The apparatus of claim 1, wherein the adjustable connector comprises an angled plate having a first leg and a second leg disposed at an angle to the first leg, wherein the first leg is adapted to be mounted by the adjustable clamp, wherein the second leg is adapted to be mounted by the transducer holder, and wherein either or both of said legs are adjustably mountable.

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7. The apparatus of claim 6, wherein the first leg comprises at least one slot adapted to receive an adjustable fastener connecting the adjustable clamp to the first leg.

5 8. The apparatus of claim 6, wherein the second leg comprises at least one slot adapted to receive an adjustable fastener connecting the transducer holder to the second leg.

9. The apparatus of claim 1, wherein:

10 the adjustable clamp comprises one or more hinge elements adapted to be rotatably disposed on a rigid element of an orthopedic appliance and adapted to be moved along a longitudinal axis of the rigid element;

the transducer holder comprises a plate adapted to receive an ultrasonic transducer and mountable on the adjustable connector; and

15 the adjustable connector comprises an angled plate having a first leg and a second leg disposed at an angle to the first leg, wherein the first leg is adapted to be mounted by the adjustable clamp, wherein the second leg is adapted to be mounted by the transducer holder, and wherein either or both of said legs are adjustably mountable.

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10. The apparatus of claim 1, wherein the adjustable connector comprises an articulating arm extending between the clamp and the transducer holder.

25 11. The apparatus of claim 10, wherein the transducer holder comprises a ball-and-socket joint affixed to a surface of the transducer.

12. The apparatus of claim 10, wherein the transducer holder comprises a bracket affixed to one surface of the transducer and attached to the articulating arm.

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13. The apparatus of claim 1, wherein the transducer holder comprises a cap adapted to receive and retain the ultrasonic transducer, and the adjustable connector comprises a shaft extending from a surface of the cap and a barrel adapted to receive the shaft.

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14. The apparatus of claim 13, wherein the shaft is adjustable relative to the barrel.

15. The apparatus of claim 13, wherein the adjustable connector further comprises  
10 an adjustment handle disposed on the shaft.

16. The apparatus of claim 13, wherein the adjustable connector further comprises a pin extending from the connector at an angle relative to the barrel, wherein the pin is adapted to be adjustably received by the adjustable clamp.

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17. The apparatus of claim 16, wherein the angle is around 90°.

18. The apparatus of claim 13, further comprising a biasing element adapted to urge the transducer holder away from the adjustable connector.

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19. The apparatus of claim 18, wherein the biasing element is a coil spring.

20. The apparatus of claim 1, wherein:

the transducer holder comprises a cap adapted to receive and retain the  
25 ultrasonic transducer; and  
the adjustable connector comprises a shaft extending from a surface of the cap and adapted to cooperate with a barrel adapted to receive the shaft, and a pin

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extending from the connector at an angle of around 90° relative to the barrel, wherein the pin is adapted to be adjustably received by the adjustable clamp.

21. The apparatus of claim 20, wherein the adjustable connector comprises a first portion attached to the pin, and a second portion, detachable from the first portion, 5 attached to the transducer holder.

22. The apparatus of claim 21, wherein the first and second portions are connected by a nonrotatable joint.

23. The apparatus of claim 22, wherein one of the first and second portions 10 contains a male element of D-shaped cross section and the other portion contains a corresponding female element of D-shaped cross section.

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